

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/23713

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A01H 5/00, 5/02, 5/04, 5/06, 5/10, 5/12, 1/06, 1/04; C12N 15/01

US CL : 800/298, 276, 264, 260; 554/8, 9; 426/601, 489

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 800/298, 276, 264, 260, 271, 278; 426/601, 489; 554/8, 9

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CAS ONLINE, AGRICOLA, EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y, E	US 6,124,524 A (JAMES, JR. et al.) 26 September 2000, see entire document, especially col. 1, 3, and 6.	1-27
Y	US 5,910,630 A (DAVIES et al.) 08 June 1999, see entire document, especially col. 1, 5, 15 and 38.	1-27
Y	US 5,885,643 A (KODALI et al.) 23 March 1999, see columns 1-2.	5, 6, 13, 19, 20-22, 27
Y	KNAPP et al. A Dominant Gene Decreases Erucic and Increases Dienoic Acid in the Seed Oils of Meadowfoam Subspecies. Crop Science. Vol. 38, pages 1541-1544, see entire document.	1-4, 7-12, 14-20, 23-26

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"B" earlier document published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

23 OCTOBER 2000

Date of mailing of the international search report

18 DEC 2000

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

MELISSA KIMBALL

Telephone No. (703) 308-0196

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/23713

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Please See Extra Sheet.

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/23713

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	SLABAS et al. Complex Lipid Biosynthesis and its Manipulation in Plants. Engineering Crop Plants for Industrial End Uses. Proceedings of the Symposium of the Industrial Biochemistry and Biotechnology Group of the Biochemical Society, UK, Portland Press, September 1996. pages 171-179.	1-27

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid.

Group I., claim(s) 1-4, 7-12, 14-18, and 23-26, drawn to meadowfoam plants which produce seeds containing oil particular levels of erucic acid and to methods of producing these plants and seeds, wherein the plants and seeds contain a specific genetic determinant for the fatty acid profile, classified in Class 800, subclass 298, for example.

Group II., claim(s) 5-6, 13, 19-22, and 27, drawn to food oil low in erucic acid, classified in Class 426, subclass 601, for example.

The inventions listed as Groups I. and II. do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The invention of Group I. involves plants and seeds containing a particular genetic determinant, while the invention of Group II. involves a second product which is physiologically distinct from that of Group I. and which does not contain a genetic determinant. Accordingly, the claims are not so linked by a special technical feature within the meaning of PCT Rule 13.2 so as to form a single inventive concept.

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

To: TANYA M. HARDING
KLARQUIST, SPARKMAN, CAMPBELL, LEIGH &
WHINSTON, LLP
ONE WORLD TRADE CENTER, SUITE 1600
121 SW SALMON STREET
PORTLAND, OREGON 97204

Date of Mailing
(day/month/year)

27 SEP 2002

Applicant's or agent's file reference

245-55658

IMPORTANT NOTIFICATION

International application No.

PCT/US00/23713

International filing date (day/month/year)

29 AUGUST 2000

Priority Date (day/month/year)

01 OCTOBER 1999

Applicant

THE STATE OF OREGON ACTING BY AND THROUGH THE STATE BOARD OF HIGHER EDUCATION ON
BEHALF OF OREGON STATE UNIVERSITY

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US

Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

PHUONG BUI

Telephone No. (703) 308-0196

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

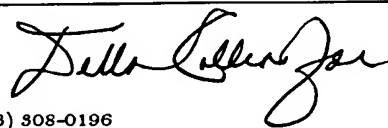
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 245-55658	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US00/23713	International filing date (day/month/year) 29 AUGUST 2000	Priority date (day/month/year) 01 OCTOBER 1999
International Patent Classification (IPC) or national classification and IPC Please See Supplemental Sheet.		
Applicant THE STATE OF OREGON ACTING BY AND THROUGH THE STATE BOARD OF HIGHER EDUCATION ON BEHALF OF OREGON STATE UNIVERSITY		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets.
☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
 These annexes consist of a total of 0 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☒ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand <u>26</u> APRIL 2001	Date of completion of this report 14 AUGUST 2002
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer PHUONG BUI  Telephone No. (703) 308-0196

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/23713

I. Basis of the report

1. With regard to the elements of the international application:*

☒ the international application as originally filed☒ the description:

pages 1-11, as originally filed

pages NONE, filed with the demand

pages NONE, filed with the letter of

☒ the claims:

pages 12-13, as originally filed

pages NONE, as amended (together with any statement) under Article 19

pages NONE, filed with the demand

pages NONE, filed with the letter of

☒ the drawings:

pages NONE, as originally filed

pages NONE, filed with the demand

pages NONE, filed with the letter of

☒ the sequence listing part of the description:

pages NONE, as originally filed

pages NONE, filed with the demand

pages NONE, filed with the letter of

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in printed form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. ☒ The amendments have resulted in the cancellation of:☒ the description, pages NONE☒ the claims, Nos. NONE☒ the drawings, sheets/fig. NONE5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

**Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/23713

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

- ☐ restricted the claims.
- ☒ paid additional fees.
- ☐ paid additional fees under protest.
- ☐ neither restricted nor paid additional fees.

2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
- ☒ not complied with for the following reasons:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claim(s) 1-4, 7-12, 14-18 and 23-26, drawn to meadowfoam plants which produce seeds containing oil with particular levels of erucic acid and to methods of producing these plants and seeds, wherein the plants and seeds contain a specific genetic determinant for the fatty acid profile.

Group II, claim(s) 5-6, 13, 19-22 and 27, drawn to food oil low in erucic acid.

The inventions listed as Groups I-II do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The invention of Group I involves plants and seeds containing a particular genetic determinant, while the invention of Group II involves a second product which is physiologically distinct from that of Group I and which does not contain a genetic determinant.

Accordingly, the claims are not so linked by a special technical feature within the meaning of PCT Rule 13.2 so as to form a single inventive concept.

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report

- ☒ all parts.
- ☐ the parts relating to claims Nos. .

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/23713

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. statement**

Novelty (N)	Claims	<u>2, 7-12, 14-26</u>	YES
	Claims	<u>1, 3-6, 13, 27</u>	NO
Inventive Step (IS)	Claims	<u>14-26</u>	YES
	Claims	<u>1-13, 27</u>	NO
Industrial Applicability (IA)	Claims	<u>1-27</u>	YES
	Claims	<u>NONE</u>	NO

2. citations and explanations (Rule 70.7)

Claims 1, 3-6, 13 and 27 lack novelty under PCT Article 33(2) as being anticipated by Knapp et al. (Crop Sci., 1998, Vol. 38, p. 1541-1544). Knapp teaches a meadowfoam plant that produces seed, the seed containing an extractable oil having an erucic acid content of 45 g/kg, which not more than about 5% by weight (p. 1544, first column). The method of claim 13 is discussed in the Materials and Methods section of Knapp. Accordingly, the claimed invention lacks novelty. Applicant's statement under article 19(1) filed April 26, 2001 states that the meadowfoam isolates used in Table 1 of Knapp have erucic acid levels of about 9.66% to about 24% (w/w). This argument is not persuasive because Knapp specifically states that at least one of the plants has an erucic acid content of 45 g/kg, which is less than 5%. One plant having the recited properties is sufficient to anticipate Applicant's claimed invention.

Claims 2 and 7-12 lack an inventive step under PCT Article 33(3) as being obvious over Knapp et al. in view of Croughan (US Pat. No. 5,736,629). The teachings of Knapp have been discussed above. While Knapp does not teach an erucic acid content of about 5%, it is well within the means of one of ordinary skill in the art to cross plants having desirable traits such as low erucic acid content to produce progeny plants having enhanced or increased desirable traits with a reasonable expectation of success. Whether that desirable trait is 5% erucic acid, 5% erucic acid, or 10% erucic acid content is a matter of design choice, any of which can be carried out by the method of Knapp without any surprising or unexpected results. Another method of incorporating desirable genes or traits into the plant genome is by use of mutagens and selecting mutant plants having the desirable genes or traits. Croughan teaches generating rice mutant plants having desirable herbicide resistance by exposure to gamma radiation or chemical mutagen ethyl methanesulphonate using the methods set forth in claims 7-12 (cols. 7 and 8). Since gamma radiation and ethyl methanesulphonate induce nonspecific mutations in the plant genome, the method of Croughan can be used to generate mutants having various desirable traits, including herbicide resistance and low erucic acid content. The (Continued on Supplemental Sheet.)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/23713

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

CLASSIFICATION:

The International Patent Classification (IPC) and/or the National classification are as listed below:

IPC(7): A01H 5/00, 5/02, 5/04, 5/06, 5/10, 5/12, 1/06, 1/04; C12N 15/01 and US Cl.: 800/298, 276, 264, 260; 554/8, 9; 426/601, 489

V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):

only difference would be the screening step, depending on what desirable trait is being sought and screened for. Accordingly, the claimed invention lacks an inventive step over Knapp in view of Croughan.

Claims 14-26 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest plants having the properties of ATCC No. PTA-2338.

NEW CITATIONS

US 5,736,629 A (CROUGHAN) 07 APRIL 1998, see entire document.

PATENT COOPERATION TREATY

OSU/TMH

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

WRITTEN OPINION

(PCT Rule 66)

To: TANYA M. HARDING
KLARQUIST, SPARKMAN, CAMPBELL, LEIGH &
WHINSTON, LLP
ONE WORLD TRADE CENTER, SUITE 1600
121 SW SALMON STREET
PORTLAND, OREGON 97204

Date of Mailing
(day/month/year) **11 OCT 2001**

Applicant's or agent's file reference
245-55658

REPLY DUE
within ONE months
from the above date of mailing

International application No.
PCT/US00/23713

International filing date (day/month/year)
29 AUGUST 2000

Priority date (day/month/year)
01 OCTOBER 1999

International Patent Classification (IPC) or both national classification and IPC
Please See Supplemental Sheet.

Applicant

THE STATE OF OREGON ACTING BY AND THROUGH THE STATE BOARD OF HIGHER EDUCATION ON BEHALF
OF OREGON STATE UNIVERSITY

1. This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

DOCKETED FOR: **11/11/01**

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step or industrial applicability
- IV ☒ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☒ Certain observations on the international application

3. The applicant is hereby invited to reply to this opinion.

When? See the time limit indicated above. ~~The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).~~

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: **01 FEBRUARY 2002**

Name and mailing address of the IPEA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

PHUONG BUI

Telephone No. (703) 308-0196

I. Basis of the opinion

1. With regard to the elements of the international application:*

☒ the international application as originally filed☒ the description:

pages 1-11, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of

☒ the claims:

pages 12-13, as originally filed
pages NONE, as amended (together with any statement) under Article 19
pages NONE, filed with the demand
pages NONE, filed with the letter of

☒ the drawings:

pages NONE, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of

☒ the sequence listing part of the description:

pages NONE, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

☒ the description, pages NONE
☒ the claims, Nos. NONE
☒ the drawings, sheets/fig NONE

5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed".

IV. Lack of unity of invention

1. In response to the invitation (Form PCT/IPEA/405) to restrict or pay additional fees the applicant has:

- ☐ restricted the claims. (See Supplemental Sheet)
- ☒ paid additional fees.
- ☐ paid additional fees under protest.
- ☐ neither restricted nor paid additional fees.

2. This Authority found that the requirement of unity of invention is not complied with for the following reasons and chose, according to Rule 68.1 not to invite the applicant to restrict or pay additional fees:

3. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this opinion:

- ☒ all parts.
- ☐ the parts relating to claims Nos. .

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement**1. statement**

Novelty (N)	Claims <u>2, 7-12, 14-27</u>	YES
	Claims <u>1, 3-6, 13</u>	NO
Inventive Step (IS)	Claims <u>14-27</u>	YES
	Claims <u>2, 7-12</u>	NO
Industrial Applicability (IA)	Claims <u>1-27</u>	YES
	Claims <u>NONE</u>	NO

2. citations and explanations

Claims 1, 3-6, 13 and 27 lack novelty under PCT Article 33(2) as being anticipated by Knapp et al. (Crop Sci., 1998, Vol. 38, p. 1541-1544). Knapp teaches a meadowfoam plant that produces seed, the seed containing an extractable oil having an erucic acid content of 45 g/kg, which not more than about 5% by weight (p. 1544, first column). The method of claim 13 is discussed in the Materials and Methods section of Knapp. Accordingly, the claimed invention lacks novelty. Applicant's statement under article 19(1) filed April 26, 2001 states that the meadowfoam isolates used in Table 1 of Knapp have erucic acid levels of about 9.66% to about 24% (w/w). This argument is not persuasive because Knapp specifically states that at least one of the plants has an erucic acid content of 45 g/kg, which is less than 5%. One plant having the recited properties is sufficient to anticipate Applicant's claimed invention.

Claims 2 and 7-12 lack an inventive step under PCT Article 33(3) as being obvious over Knapp et al. in view of Croughan (US Pat. No. 5,736,629). The teachings of Knapp have been discussed above. While Knapp does not teach an erucic acid content of about 3%, it is well within the means of one of ordinary skill in the art to cross plants having desirable traits such as low erucic acid content to produce progeny plants having enhanced or increased desirable traits with a reasonable expectation of success. Whether that desirable trait is 5% erucic acid, 3% erucic acid, or 10% erucic acid content is a matter of design choice, any of which can be carried out by the method of Knapp without any surprising or unexpected results. Another method of incorporating desirable genes or traits into the plant genome is by use of mutagens and selecting mutant plants having the desirable genes or traits. Croughan teaches generating rice mutant plants having desirable herbicide resistance by exposure to gamma radiation or chemical mutagen ethyl methanesulphonate using the methods set forth in claims 7-12 (cols. 7 and 8). Since gamma radiation and ethyl methanesulphonate induce nonspecific mutations in the plant genome, the method of Croughan can be used to generate mutants having various desirable traits, including herbicide resistance and low erucic acid content. The (Continued on Supplemental Sheet.)

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claims 7-12 are objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6 because the claims are indefinite for the following reason(s): low is a relative term lacking a comparative basis.

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

TIME LIMIT:

The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.

CLASSIFICATION:

The International Patent Classification (IPC) and/or the National classification are as listed below:

IPC(7): A01H 5/00, 5/02, 5/04, 5/06, 5/10, 5/12, 1/06, 1/04; C12N 15/01 and US Cl.: 800/298, 276, 264, 260; 554/8, 9; 426/601, 489

IV. LACK OF UNITY OF INVENTION:

1. This response is made to a telephone Lack of Unity requirement (see telephone memorandum attached hereto or attached to a prior Written Opinion).

V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):

only difference would be the screening step, depending on what desirable trait is being sought and screened for. Accordingly, the claimed invention lacks an inventive step over Knapp in view of Croughan.

Claims 14-26 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest plants having the properties of ATCC No. PTA-2338.

----- NEW CITATIONS -----

US 5,736,629 A (CROUGHAN) 07 APRIL 1998, see entire document.

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: TANYA M. HARDING
KLARQUIST, SPARKMAN, CAMPBELL, LEIGH &
WHINSTON, LLP
ONE WORLD TRADE CENTER, SUITE 1600
121 SW SALMON STREET
PORTLAND, OREGON 97204

PCT

WRITTEN OPINION

(PCT Rule 66)

Date of Mailing (day/month/year) 15 OCT 2001	
Applicant's or agent's file reference 245-55658	REPLY DUE within ONE months from the above date of mailing
International application No. PCT/US00/23713	International filing date (day/month/year) 29 AUGUST 2000
Priority date (day/month/year) 01 OCTOBER 1999	
International Patent Classification (IPC) or both national classification and IPC Please See Supplemental Sheet.	
Applicant THE STATE OF OREGON ACTING BY AND THROUGH THE STATE BOARD OF HIGHER EDUCATION ON BEHALF OF OREGON STATE UNIVERSITY	

1. This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step or industrial applicability
- IV ☒ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☒ Certain observations on the international application

3. The applicant is hereby invited to reply to this opinion.

When? See the time limit indicated above. ~~The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).~~

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 *bis*.
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 01 FEBRUARY 2002

Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer <div style="text-align: center;"> PHUONG BUI </div>
Facsimile No. (703) 305-3230	Telephone No. (703) 308-0196

I. Basis of the opinion

1. With regard to the elements of the international application: *

- ☒ the international application as originally filed
- ☒ the description:
 pages 1-11 , as originally filed
 pages NONE , filed with the demand
 pages NONE , filed with the letter of _____
- ☒ the claims:
 pages 12-13 , as originally filed
 pages NONE , as amended (together with any statement) under Article 19
 pages NONE , filed with the demand
 pages NONE , filed with the letter of _____
- ☒ the drawings:
 pages NONE , as originally filed
 pages NONE , filed with the demand
 pages NONE , filed with the letter of _____
- ☒ the sequence listing part of the description:
 pages NONE , as originally filed
 pages NONE , filed with the demand
 pages NONE , filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages NONE
- ☒ the claims, Nos. NONE
- ☒ the drawings, sheets/~~fig~~ NONE

5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed".

IV. Lack of unity of invention

1. In response to the invitation (Form PCT/IPEA/405) to restrict or pay additional fees the applicant has:

- ☐ restricted the claims. (See Supplemental Sheet)
- ☒ paid additional fees.
- ☐ paid additional fees under protest.
- ☐ neither restricted nor paid additional fees.

2. This Authority found that the requirement of unity of invention is not complied with for the following reasons and chose, according to Rule 68.1 not to invite the applicant to restrict or pay additional fees:

3. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this opinion:

- ☒ all parts.
- ☐ the parts relating to claims Nos. .

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. statement**

Novelty (N)	Claims <u>2, 7-12, 14-27</u>	YES
	Claims <u>1, 3-6, 13</u>	NO
Inventive Step (IS)	Claims <u>14-27</u>	YES
	Claims <u>2, 7-12</u>	NO
Industrial Applicability (IA)	Claims <u>1-27</u>	YES
	Claims <u>NONE</u>	NO

2. citations and explanations

Claims 1, 3-6, 13 and 27 lack novelty under PCT Article 33(2) as being anticipated by Knapp et al. (Crop Sci., 1998, Vol. 38, p. 1541-1544). Knapp teaches a meadowfoam plant that produces seed, the seed containing an extractable oil having an erucic acid content of 45 g/kg, which not more than about 5% by weight (p. 1544, first column). The method of claim 13 is discussed in the Materials and Methods section of Knapp. Accordingly, the claimed invention lacks novelty. Applicant's statement under article 19(1) filed April 26, 2001 states that the meadowfoam isolates used in Table 1 of Knapp have erucic acid levels of about 9.66% to about 24% (w/w). This argument is not persuasive because Knapp specifically states that at least one of the plants has an erucic acid content of 45 g/kg, which is less than 5%. One plant having the recited properties is sufficient to anticipate Applicant's claimed invention.

Claims 2 and 7-12 lack an inventive step under PCT Article 33(3) as being obvious over Knapp et al. in view of Croughan (US Pat. No. 5,736,629). The teachings of Knapp have been discussed above. While Knapp does not teach an erucic acid content of about 3%, it is well within the means of one of ordinary skill in the art to cross plants having desirable traits such as low erucic acid content to produce progeny plants having enhanced or increased desirable traits with a reasonable expectation of success. Whether that desirable trait is 5% erucic acid, 3% erucic acid, or 10% erucic acid content is a matter of design choice, any of which can be carried out by the method of Knapp without any surprising or unexpected results. Another method of incorporating desirable genes or traits into the plant genome is by use of mutagens and selecting mutant plants having the desirable genes or traits. Croughan teaches generating rice mutant plants having desirable herbicide resistance by exposure to gamma radiation or chemical mutagen ethyl methanesulphonate using the methods set forth in claims 7-12 (cols. 7 and 8). Since gamma radiation and ethyl methanesulphonate induce nonspecific mutations in the plant genome, the method of Croughan can be used to generate mutants having various desirable traits, including herbicide resistance and low erucic acid content. The (Continued on Supplemental Sheet.)

WRITTEN OPINION

International application No.

PCT/US00/23713

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claims 7-12 are objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6 because the claims are indefinite for the following reason(s): low is a relative term lacking a comparative basis.

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

TIME LIMIT:

The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.

CLASSIFICATION:

The International Patent Classification (IPC) and/or the National classification are as listed below:

IPC(7): A01H 5/00, 5/02, 5/04, 5/06, 5/10, 5/12, 1/06, 1/04; C12N 15/01 and US Cl.: 800/298, 276, 264, 260; 554/8, 9; 426/601, 489

IV. LACK OF UNITY OF INVENTION:

1. This response is made to a telephone Lack of Unity requirement (see telephone memorandum attached hereto or attached to a prior Written Opinion).

V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):

only difference would be the screening step, depending on what desirable trait is being sought and screened for. Accordingly, the claimed invention lacks an inventive step over Knapp in view of Croughan.

Claims 14-26 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest plants having the properties of ATCC No. PTA-2338.

----- NEW CITATIONS -----

US 5,736,629 A (CROUGHAN) 07 APRIL 1998, see entire document.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: TANYA M. HARDING
KLARQUIST, SPARKMAN, CAMPBELL, LEIGH &
WHINSTON, LLP
ONE WORLD TRADE CENTER, SUITE 1600
121 SW SALMON STREET
PORTLAND, OREGON 97204

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 245-55658	Date of Mailing (day/month/year) 18 DEC 2000
International application No. PCT/US00/23713	International filing date (day/month/year) 29 AUGUST 2000
Applicant THE STATE OF OREGON ACTING BY AND THROUGH THE STATE BOARD OF HIGHER EDUCATION ON BEHALF OF OREGON STATE UNIVERSITY	

1. ☒ The applicant is hereby notified that the international search report has been established and is transmitted herewith.

Filing of amendments and statement under Article 19:
The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the international search report; however, for more details, see the notes on the accompanying sheet.

Where? Directly to the International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland
Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in rules 90 bis 1 and 90 bis 3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer MELISSA KIMBALL Telephone No. (703) 308-0196
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PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 245-55658	FOR FURTHER ACTION	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/US00/23713	International filing date (day/month/year) 29 AUGUST 2000	(Earliest) Priority Date (day/month/year) 01 OCTOBER 1999
Applicant THE STATE OF OREGON ACTING BY AND THROUGH THE STATE BOARD OF HIGHER EDUCATION ON BEHALF OF OREGON STATE UNIVERSITY		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☒ Unity of invention is lacking (See Box II).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No. _____

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/23713

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Please See Extra Sheet.

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/23713

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A01H 5/00, 5/02, 5/04, 5/06, 5/10, 5/12, 1/06, 1/04; C12N 15/01

US CL : 800/298, 276, 264, 260; 554/8, 9; 426/601, 489

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 800/298, 276, 264, 260, 271, 278; 426/601, 489; 554/8, 9

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CAS ONLINE, AGRICOLA, EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y, E	US 6,124,524 A (JAMES, JR. et al.) 26 September 2000, see entire document, especially col. 1, 3, and 6.	1-27
Y	US 5,910,630 A (DAVIES et al.) 08 June 1999, see entire document, especially col. 1, 5, 15 and 38.	1-27
Y	US 5,885,643 A (KODALI et al.) 23 March 1999, see columns 1-2.	5, 6, 13, 19, 20-22, 27
Y	KNAPP et al. A Dominant Gene Decreases Erucic and Increases Dienoic Acid in the Seed Oils of Meadowfoam Subspecies. Crop Science. Vol. 38, pages 1541-1544, see entire document.	1-4, 7-12, 14-20, 23-26

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
A document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken, alone
B earlier document published on or after the international filing date	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*Z* document member of the same patent family
O document referring to an oral disclosure, use, exhibition or other means	
P document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

23 OCTOBER 2000

Date of mailing of the international search report

18 DEC 2000

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

MELISSA KIMBALL

Telephone No. (703) 308-0196

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	SLABAS et al. Complex Lipid Biosynthesis and its Manipulation in Plants. Engineering Crop Plants for Industrial End Uses. Proceedings of the Symposium of the Industrial Biochemistry and Biotechnology Group of the Biochemical Society, UK, Portland Press, September 1996. pages 171-179.	1-27

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid.

Group I., claim(s) 1-4, 7-12, 14-18, and 23-26, drawn to meadowfoam plants which produce seeds containing oil particular levels of erucic acid and to methods of producing these plants and seeds, wherein the plants and seeds contain a specific genetic determinant for the fatty acid profile, classified in Class 800, subclass 298, for example.
Group II., claim(s) 5-6, 13, 19-22, and 27, drawn to food oil low in erucic acid, classified in Class 426, subclass 601, for example.

The inventions listed as Groups I. and II. do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The invention of Group I. involves plants and seeds containing a particular genetic determinant, while the invention of Group II. involves a second product which is physiologically distinct from that of Group I. and which does not contain a genetic determinant. Accordingly, the claims are not so linked by a special technical feature within the meaning of PCT Rule 13.2 so as to form a single inventive concept.

CHAPTER I
PCT TELEPHONE MEMORANDUM
FOR
LACK OF UNITY OF INVENTION



PCT No.: PCT/US00/23713

Examiner: MELISSA KIMBALL

Attorney spoken to: TANYA HARDING

Date of call: 12 OCTOBER 2000

- ☒ Amount of payment approved: \$210.00
- ☒ Deposit account number to be charged: 02-4550
- ☒ Attorney elected to pay for ALL additional inventions
- ☐ Attorney elected to pay only for the additional inventions covered by
 - ☐ Group(s):
 - encompassing --
 - ☐ Claim(s):
- ☐ Attorney elected **NOT** to pay for any additional inventions, therefore, only the first claimed invention (Group I) covered by Claim(s) _ has been searched.
- ☒ Attorney was orally advised that there is no right to protest for any group not paid for.
- ☒ Attorney was orally advised that any protest must be filed no later than 15 days from the mailing of the Search Report (PCT/ISA/210).

Time Limit For Filing A Protest

Applicant is hereby given 15 days from the mailing date of this Search Report in which to file a protest of the holding of lack of unity of invention. In accordance with PCT Rule 40.2, applicant may protest the holding of lack of unity only with respect to the group(s) paid for.

Detailed Reasons For Holding Lack Of Unity Of Invention:

Detailed Reasons For Holding Lack of Unity of Invention:

(Continued on a separate sheet)

Note: A copy of this form must be attached to the Search Report.

ATTACHMENT TO CHAPTER I PCT TELEPHONE MEMORANDUM
FOR
LACK OF UNITY OF INVENTION

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid.

Group I., claim(s) 1-4, 7-12, 14-18, and 23-26, drawn to meadowfoam plants which produce seeds containing oil with particular levels of erucic acid and to methods of producing these plants and seeds, wherein the plants and seeds contain a specific genetic determinant for the fatty acid profile, classified in Class 800, subclass 298, for example.

Group II., claim(s) 5-6, 13, 19-22, and 27, drawn to food oil low in erucic acid, classified in Class 426, subclass 601, for example.

The inventions listed as Groups I. and II. do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The invention of Group I. involves plants and seeds containing a particular genetic determinant, while the invention of Group II. involves a second product which is physiologically distinct from that of Group I. and which does not contain a genetic determinant. Accordingly, the claims are not so linked by a special technical feature within the meaning of PCT Rule 13.2 so as to form a single inventive concept.